

Notice of Allowability	Application No.	Applicant(s)	
	10/086,962	BERNDT ET AL.	
	Examiner	Art Unit	
	Kimbhinh T. Nguyen	2671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 04/12/05.
2. ☒ The allowed claim(s) is/are 5,15,24 and 34.
3. ☒ The drawings filed on 28 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

DETAILED ACTION

1. This action is responsive to amendment filed 04/12/05.
2. Claims 5, 15, 24 and 34 are pending in the application.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Palys on 05/02/05.

The application has been amended as follows:

Claim 5 has been changed as the following:

A computer-implemented method of indicating a failover data path in a graphical user interface environment, said method comprising:

graphically displaying at least one source device;

graphically displaying at least one target device;

graphically displaying a first data path between the at least one source device and the at least one target device comprising displaying a first link between the at least one source and the at least one target device and animating the first link to indicate that the first data path has not failed; and

in response to a failure in the first data path:

graphically indicating the failure in the first data path; and

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graphically displaying a failover data path,
wherein said graphically indicating the failure in the first data path comprises
displaying the first link using a broken line.

Claim 15 has been changed as the following:

An apparatus for managing the display of a plurality of data paths in a graphical
user interface environment, comprising:

a memory having program instructions; and
a processor configured to use the program instructions to:
graphically display at least one source device;
graphically display at least one target device;
graphically display a first data path between the at least one source device
and the at least one target device comprising displaying a first link between the at least
one source and the at least one target device and animating the first link to indicate that
the first data path has not failed; and

in response to a failure in the first data path:

graphically indicate the failure in the first data path; and
graphically display a failover data path,
wherein said graphically indicating the failure in the first data path comprises
displaying the first link using a broken line.

Claim 24 has been changed as the following:

A method of operating a storage system, comprising:

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transmitting data from at least one application host to at least one storage system along a first data path:

graphically displaying at least one component of the at least one application host in a graphical user interface environment;

graphically displaying at least one component of the at least one storage system in the graphical user interface environment;

graphically displaying the first data path in the graphical user interface environment and displaying a first link between the at least one component of the at least one application host and the at least one component of the at least one storage system, and animating the first link to indicate that the first data path has not failed; and

in response to a failure in the first data path:

transmitting data from the at least one application host to the at least one storage system along a failover data path;

graphically indicating the failure in the first data path in the graphical user interface environment; and

graphically displaying the failover data path in the graphical user interface environment;

wherein said graphically indicating the failure in the first data path comprises displaying the first link using a broken line.

Claim 34 has been changed as the following:

A computer-readable medium containing instructions for indicating a failover data path in a graphical user interface environment, wherein said instructions cause operations to be performed comprising:

rendering a graphical representation of at least one source device on a computer display;

rendering a graphical representation of at least one target device on a computer display;

rendering a graphical representation of a first data path between the at least one source device and the at least one target device and displaying a first link between the at least one source and the at least one target device and animating the first link to indicate that the first data path has not failed; and

in response to a failure in the first data path:

graphically indicating the failure in the first data path; and

rendering a graphical representation of a failover data path,

wherein said graphically indicating the failure in the first data path comprises displaying the first link using a broken line.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

Claims 5, 15 and 34, the prior art does not teach a computer-implemented method and system of indicating a failover data path in a graphical user interface environment, comprising: graphically displaying a first data path between the at least

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one source device and at least one target device comprising displaying a first link between the at least one source and the at least one target device and animating the first link to indicate that the first data path has not failed; in response to a failure in the first data path: graphically indicating the failure in the first data path; and graphically displaying a failover data path, wherein the graphically indicating the failure in the first data path comprises displaying the first link using a broken line.

Claim 24, the prior art does not teach graphically displaying the first data path in the graphical user interface environment and displaying a first link between the at least one component of the at least one application host and the at least one component of the at least one storage system, and animating the first link to indicate that the first data path has not failed; and in response to a failure in the first data path: transmitting data from the at least one application host to the at least one storage system along a failover data path; graphically indicating the failure in the first data path in the graphical user interface environment; and graphically displaying the failover data path in the graphical user interface environment; wherein said graphically indicating the failure in the first data path comprises displaying the first link using a broken line.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

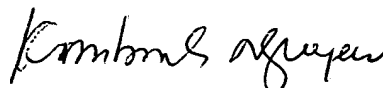
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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimbinh T. Nguyen whose telephone number is (571) 272-7644. The examiner can normally be reached on Monday to Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Friday from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 2, 2005



KIMBINH T. NGUYEN
PRIMARY EXAMINER